

### Claims

1. An assembly for fusion bonding two thermally nonexpandable thermoplastic tubular elements (1, 2) together, characterized in that it comprises a first thermally nonexpandable thermoplastic tubular element (1) having a bonding zone (4) on the internal wall of one of its ends, a second thermally nonexpandable thermoplastic tubular element (2) having a bonding zone (6) on the external wall of one of its ends, the diameter of the internal wall of said end of the first tubular element (1) being greater than the diameter of the external wall of said end of the second tubular element (2) so as to define, when the two ends overlap, an annular space between said internal and external walls, the assembly furthermore including a thermoplastic sleeve (3) suitable for being housed in said annular space, said sleeve (3) containing a conducting element (5) that can be heated by induction.
2. The assembly as claimed in the preceding claim, characterized in that the first tubular element is a coupler.
3. A method of fusion bonding two tubular elements together using the assembly of claim 1, characterized by the following steps:
- the diameter of the internal wall of the first tubular element is adjusted so as to be able to place the sleeve in said annular space;
  - the sleeve is placed around the end of the second tubular element;
  - the end of the second tubular element and of the sleeve is introduced into the end of the first tubular element; and
  - the bonding zone is heated and fused by induction heating.